

All-Bottle 704/1504 Installation/Service and User Manual

November 2011

BERG COMPANY, LLC

FCC Information:

This device complies with Part 15 of FCC rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference and, (2) this device must accept any interference received including interference that may cause undesired operation.

Note: The user is cautioned that any changes or modifications not expressly approved by the party responsible for FCC compliance could void the user's authority to operate the equipment.

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SECTION
1

Getting Started

The general guidelines provided in this section can help you take the necessary steps to make each **All-Bottle 704/1504** installation run as smoothly as possible.

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System Components

The **All-Bottle 704/1504** is a compact and affordable liquor dispensing system that is simple and easy to use. The system is composed of the following components.

ECU (Electronic Control Unit)	The compact, lightweight console that controls pouring operations. One unit provides free-pouring style control for an unlimited number of brands using fifteen different price codes and four portion sizes. The LCD panel on the front of the ECU displays the price code and portion size of each pour and the total number of pours at each price code and portion size. Security is maintained through a keylock.
Activator Ring	A circular receiver attached to the ECU that reads the electronic price information on coded pourers. It sits in a holder when not in use and easily slips over the top of a bottle for pouring.
Coded Pourer	Specially designed pourers inserted and sealed into each liquor bottle. Metal coding bands in seven different combinations electronically identify price and portion information to the ECU.
POS or Printer Interface	A serial interface provided through a 9-pin D-sub connector on the back of the ECU. Several POS protocols are supported. The POS interface provides a unique, predefined PLU for each pourer code and size from a base PLU which you select. The printer interface supports the printing of pour totals on a serial printer.
Berg Terminal Software	Software that allows you to send and receive a setup file at the ECU from a PC. Prices, pouring times and other setup details can be configured in a file at the PC and then downloaded to one or more ECUs.



All-Bottle 704/1504 ECU with Activator Ring



Fifteen Coded Pourers



Sales Terminal

OR



Printer



Berg Terminal software

Installation Game Plan

Berg offers the following checklist to expedite your installation of the **All-Bottle 704/1504**.

The sequence of steps follows the order tasks appear in this manual. To help you locate information quickly and easily, related tasks are grouped throughout the manual.

Getting Started

- 1. Gather the customer's setup information.
- 2. Submit order for All-Bottle 704/1504 (Berg PN 9008705/9001504) to Berg.

For more information about interfacing with a sales terminal, Berg authorized dealers are invited to go to the dealer area of the Berg web site, www.berg-controls.com.

If the system will be interfaced with a POS sales terminal, make sure the sales terminal supports Berg LDS. Include the Berg universal POS interface cable kit with your order. *Often there are setup requirements for the sales terminal Berg knows nothing about. Berg strongly suggests you develop a good working relationship with a local representative of the sales terminal company. This will enable you to test the POS interface before quoting or installing at a customer site.*

- 3. Set an installation date and assemble required materials.

Installation

- 4. Install the ECU mounting bracket.
- 5. Install the All-Bottle coded pourers.
- 6. For a printer or POS interface, attach a cable between the ECU and printer or POS system.
- 7. Secure the ECU to the mounting bracket.
- 8. Set up POS options using the Communications menu. Verify the correct PLUs are entered at the sales terminal.

ECU Setup

- 9. Select a factory default set of pour times using the Setup menu (or receive values from a file or other 704/1504 ECU).
- 10. Adjust pour times for this client and enter the client's pricing (or receive values from a file or other 704/1504 ECU).

System Operation and Maintenance

- 11. Demonstrate pouring procedure.
- 12. View or print X report.
- 13. View or print Z report.
- 14. Demonstrate cleaning procedures.
- 15. Go over financial controls.

Gather Customer Setup Information

Determine exactly what is needed for the installation to save time and surprises later.

ECU Pour Settings Find out which features to enable at the ECU. See the *ECU Setup* section for a description of each option.

Portion Sizes Record the correct portion amounts for Size 1-4 for each Code on the **All-Bottle 704/1504 Setup Worksheet**. Use these amounts when you set the portions for each pourer.

Categories of Liquor One example of organizing liquor by price codes is the following:

Code 1 Well Liquor	Code 9 Imported Cordials
Code 2 Call Liquor	Code 10 Thick Cordials
Code 3 Premium Liquor	Code 11 Jaegermeister
Code 4 Domestic Cordials	Code 12 Baileys
Code 5 Premium Cordials	Code 13 Dom. Cordial, Cooler shot
Code 6 Sherry	Code 14 Prem. Cordial, Cooler shot
Code 7 Cognac	Code 15 House Wine
Code 8 Top Shelf Liquor	

Free Poured Brands Some brands may continue to be free-poured and might not be entered on the list. They include Triple Sec, Galliano, Sweet Vermouth, Dry Vermouth, Creme de Cassis and Creme de Noya.

These items are used like orange juice in a Screwdriver. They are mixers and have no retail value. However, if customers frequently order any of these brands on the rocks or up, you should plan to lock them up with the appropriate pourers and enter them on the list.

Number of Pourers Needed Use the **All-Bottle 704/1504 Setup Worksheet** to determine the quantity of each pourer needed. List the number of bottles of each brand used in the racks and reserve cabinets (par stock).

Include enough pourers to avoid having the bar restocked in mid-shift. Typically, you should have enough liquor locked up with coded pourers for twenty-four hours of operation.

For example, if there are three speed racks with one bottle of bar vodka in each, plus eight bottles in the par stock for backup, the quantity of pourers needed for bar vodka would be eleven.

All-Bottle 704/1504 Setup Worksheet

ECU Setup

- Portion Size Reset
- Restart Pour Delay _____ seconds
- Disable Portion Sizes
 - S
 - R
 - L
 - X
- Default Portion Size
 - S
 - R
 - L
 - X
- Allow Bartender Z
- Base default portions on:
 - oz
 - ml
 - Basic
 - Alternate

POS Setup

- Base PLU _____
- Protocol
 - Berg Basic 96n81
 - Berg Generic 24n81
 - Samsung 650 24n81
 - Micros 8700 96e72
 - Infogen 24n81
 - HSI 24n81
 - Micros 4700 24o71
 - Panasonic 24n81
 - Positouch 24n81
- Pour Function
 - Wait for Release

Code & Size	PLU	Name	oz/ml	Price
Code 1 Size 1				
Size 2				
Size 3				
Size 4				
Code 2 Size 1				
Size 2				
Size 3				
Size 4				
Code 3 Size 1				
Size 2				
Size 3				
Size 4				
Code 4 Size 1				
Size 2				
Size 3				
Size 4				
Code 5 Size 1				
Size 2				
Size 3				
Size 4				
Code 6 Size 1				
Size 2				
Size 3				
Size 4				
Code 7 Size 1				
Size 2				
Size 3				
Size 4				

Code & Size	PLU	Name	oz/ml	Price
Code 8 Size 1				
Size 2				
Size 3				
Size 4				
Code 9 Size 1				
Size 2				
Size 3				
Size 4				
Code10 Size 1				
Size 2				
Size 3				
Size 4				
Code11 Size 1				
Size 2				
Size 3				
Size 4				
Code12 Size 1				
Size 2				
Size 3				
Size 4				
Code13 Size 1				
Size 2				
Size 3				
Size 4				
Code14 Size 1				
Size 2				
Size 3				
Size 4				
Code15 Size 1				
Size 2				
Size 3				
Size 4				

All-Bottle 704/1504 Setup Worksheet

Inserts Needed

Undersize inserts (PN 9007281)
 Standard size inserts (PN 9007122)

Oversize inserts (PN 9007282)
 Extra large inserts (PN 9008799)

Pourers Needed

Brand	Rack Bottles	Reserve Bottles	
Total Pourers	<input type="checkbox"/>	<input type="checkbox"/>	= <input type="checkbox"/>

1

Brand	Rack Bottles	Reserve Bottles	
Total Pourers	<input type="checkbox"/>	<input type="checkbox"/>	= <input type="checkbox"/>

2

Brand	Rack Bottles	Reserve Bottles	
Total Pourers	<input type="checkbox"/>	<input type="checkbox"/>	= <input type="checkbox"/>

3

Brand	Rack Bottles	Reserve Bottles	
Total Pourers	<input type="checkbox"/>	<input type="checkbox"/>	= <input type="checkbox"/>

4

All-Bottle 704/1504 Setup Worksheet

Pourers Needed (cont.)

Brand	Rack Bottles	Reserve Bottles	
Total Pourers	<input type="text"/>	<input type="text"/>	= <input type="text"/>

5



Brand	Rack Bottles	Reserve Bottles	
Total Pourers	<input type="text"/>	<input type="text"/>	= <input type="text"/>

6



Brand	Rack Bottles	Reserve Bottles	
Total Pourers	<input type="text"/>	<input type="text"/>	= <input type="text"/>

7



Brand	Rack Bottles	Reserve Bottles	
Total Pourers	<input type="text"/>	<input type="text"/>	= <input type="text"/>

8



All-Bottle 704/1504 Setup Worksheet

Pourers Needed (cont.)

Brand	Rack Bottles	Reserve Bottles	
Total Pourers			=

9

Brand	Rack Bottles	Reserve Bottles	
Total Pourers			=

10

Brand	Rack Bottles	Reserve Bottles	
Total Pourers			=

11

Brand	Rack Bottles	Reserve Bottles	
Total Pourers			=

12

All-Bottle 704/1504 Setup Worksheet

Pourers Needed (cont.)

Brand	Rack Bottles	Reserve Bottles	
Total Pourers			=

13

Brand	Rack Bottles	Reserve Bottles	
Total Pourers			=

14

Brand	Rack Bottles	Reserve Bottles	
Total Pourers			=

15

Tools and Materials Required

Berg offers the following list to help in your preparation for an **All-Bottle 704/1504 installation**.

Tools Required

Phillips screwdriver
Heat gun (if using heat shrinkable seals)
Pressure release tool
Graduated cylinder
Software CD with support tools and manual

Equipment Preparation

Make sure the **All-Bottle 704/1504** equipment arrives at your shop a few days before you plan to install the system. Open the boxes and check to see you have everything you need. Also, verify nothing was damaged during shipping.

Secure Menus

A key maintains security at the ECU. This key is used to turn the ECU on and off and to access the secure menus.



□ To pour drinks:

1. Insert the key and turn to the ON position.
2. Remove the key.



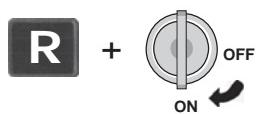
□ To turn the ECU off:

1. Insert the key and turn to the OFF position.
2. Remove the key.



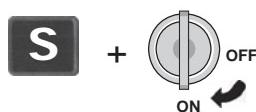
□ To access User (X) Reports:

1. Press “R” and “*” (while in the ON position).



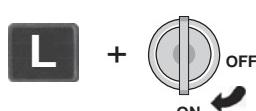
□ To access Manager (Z) Reports:

1. Insert the key.
2. Press “R” while turning the key from OFF to ON.



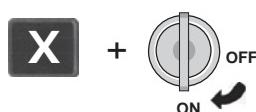
□ To access the Setup Menu:

1. Insert the key.
2. Press “S” while turning the key from OFF to ON.



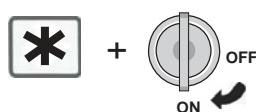
□ To access the Maintenance and Calibration Menu:

1. Insert the key.
2. Press “L” while turning the key from OFF to ON.



□ To access the Communications Menu:

1. Insert the key.
2. Press “X” while turning the key from OFF to ON.



□ To access the Price/Portion Setup Menu:

1. Insert the key.
2. Press “*” while turning the key from OFF to ON.

SECTION **2** Installation

It's best to install the system early in the week, giving the bartenders a few days to operate the system before a busy weekend. It's also best to install the system early in the morning before any bartenders arrive. Refer to this section for help with the following tasks:

Install the ECU	2-2
Install the All-Bottle Coded Pourers	2-4
Connect the ECU to a POS System	2-6
PLU Table	2-8
Connect the ECU to a Printer	2-10

Install the ECU

The **All-Bottle 704/1504** ECU is designed for easy installation under the bar. It should be mounted 1/

4 inch to 3/4 inch (.6 cm to 1.6 cm) back from the front edge of the bar to help protect it from liquid damage. Install the ECU as far away from sinks, dishwashers and other sources of water or steam as is practical.

■ To install the ECU:

1. Select a location for the ECU within 5 1/2 feet (1.7 meters) of a properly grounded 110 VAC (or 220 VAC) electrical outlet.
2. Install the ECU mounting bracket securely under the bar using the four wood screws provided.
3. Attach any cables to the back of the ECU before mounting the ECU to insure ease of access. See *Connect the ECU to a Printer*, or *Connect the ECU to a POS System* in this section.
4. Secure the ECU to the mounting bracket with the two machine screws provided.
5. Mount the activator ring holder to the right of the ECU using 4 wood screws. Mount the holder to a secure surface where it will be within the bartender's convenient reach.
6. Attach the cable that connects the 12-volt DC power supply to the ECU.
7. Plug the power supply into the electrical outlet.
(Safe electrical practice is to always make all other connections before connecting to the electrical outlet.)



Mounting bracket



Power supply

Caution

Operating Environment

The components that comprise the **All-Bottle 704/1504** system have been designed to perform well in a typical bar, restaurant, or stadium environment. However, as with all electronic equipment, certain guidelines should be followed in locating the components. For the ECU a protected, dry and clean location is required. The operating temperature range for this component is from 5° C to 40° C (41° F to 104° F).

All-Bottle 704/1504 ECU



Activator ring holder



ECU back panel



Attach power cable

Attach POS or
printer cable

Dispense Network connector
is behind the label

Install the All-Bottle Coded Pourers

To insure a perfect fit in each liquor bottle, Berg offers inserts (the part of the coded pourer that fits in the bottle) in four sizes. To complete an **All-Bottle 704/1504** installation, be sure to have an ample supply of varying sizes of inserts, an appropriate number of each of the fifteen price coded pourers and a box of security seals.

■ To install the All-Bottle coded pourers:

1. Select the appropriately coded pourer for the liquor bottle and attach the right size insert. Remove a numbered seal and mylar tab from the box of security seals.
2. Firmly insert the pourer into the bottle. Use the pressure release tool (Berg PN 9008733) to prevent liquor being forced out of a full bottle. To use the tool, insert half the length of plastic cord in the bottle. Insert the pourer completely and pull out the tool with an upward motion while maintaining hold of the pourer and bottle.
3. Slide the opening in the mylar tab over the top of the pourer with the adhesive side down. Align the notch in the mylar tab with the notch in the pourer. Pull both tab ends down tight onto the neck of the bottle.

Wrap a numbered seal around the neck of the bottle and the mylar tab ends. Make sure you can still read the number on the seal. The lower edge of the seal should be even with the lower edge of the mylar tab ends.

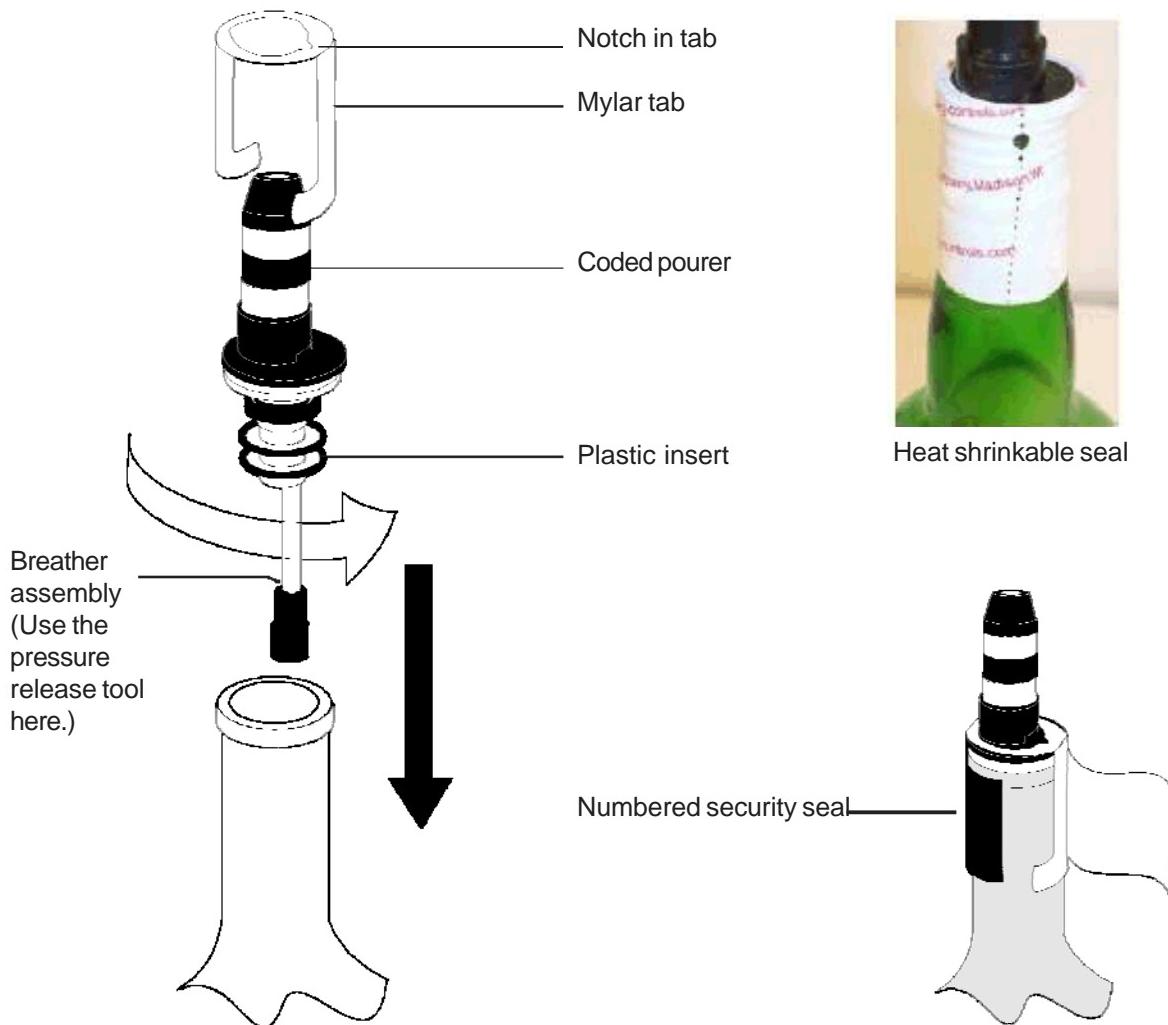
OR

Slide the heat shrinkable preformed seal over the pourer and apply heat evenly to shrink the seal to the bottle.

4. Repeat steps 1-3 for each liquor bottle.

■ To change an insert on the All-Bottle coded pourers:

1. Remove the current insert by pulling and twisting it from the coded pourer.
2. Select a new size insert. Choose from an undersize insert (Berg PN 9007281), a standard size insert (Berg PN 9007122), an oversize insert (Berg PN 9007282) or an extra large insert (Berg PN 9008799).
3. Push the new insert onto the coded pourer.



Note

- It's essential to clean coded pourers when they're removed from empty bottles. See *Clean the Coded Pourers* in the *Maintenance* section.

Connect the ECU to a POS System

In addition to making the necessary hardware connections for communication between the ECU and POS system, you need to select POS setup options.

■ To connect the ECU to a POS system:

1. Connect the ECU end of the Berg universal POS interface cable kit to the back of the ECU using the 9-pin Printer/POS port. Tighten the connecting screws.



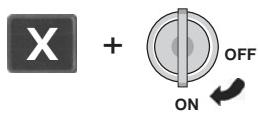
ECU back panel



POS System

POS Protocol

- **Berg Basic**
9600 baud, no parity, 8 bits
- **Berg Generic**
2400 baud, no parity, 8 bits
- **Samsung 650**
2400 baud, no parity, 8 bits
- **Micros 8700**
9600 baud, even parity, 7 bits
- **Infogenesis**
2400 baud, even parity, 8 bits
- **HSI**
2400 baud, no parity, 8 bits
- **Micros 4700**
2400 baud, odd parity, 7 bits
- **Panasonic**
2400 baud, no parity, 8 bits
- **Positouch**
2400 baud, no parity, 8 bits



■ To set up the POS interface:

1. Access the Communications menu by pressing "X" while turning the key from OFF to ON.
2. Press "S" to turn on the POS interface.

Press

3. Select your POS protocol when you find it in the list. See the *POS Protocol* sidebar for the complete list. Press "L" repeatedly to scroll through the list. Press "S" to select your protocol when you see it.

Press

4. Select your base PLU by pressing "S" or "R". Press "L" to see the next choices.

The number you select is the base for assigning a PLU to every size of every pourer code. See the *PLU Table* in this section. To define your own PLU base, select the last choice (12345...). Define the base using an ECU setup file. See *Edit an ECU Setup File* in the *ECU Files* section. The Infogenesis protocol only uses 100 or 150 as a base PLU.

Make sure you enter matching PLUs in the POS system.

Press

5. Select a POS pour function.

Press "S" to enable Wait For Release. This means the ECU waits for a valid POS response before initiating a pour. If a response is not detected, the ECU will not pour.

Press "X" to disable Wait For Release. This means the ECU always pours without waiting for a valid POS response.

6. When you're ready to exit the Communications menu, turn the key to OFF.

Note

- All changes are saved as you make them.

POS INTERFACE	
[*]<-ON	OFF->[]

BERG-BAS	next	PROT
[*]	<->	24n8

100	150	next	PLU
[*]	[]	<->	

z
z
z

200	250	next	PLU
[]	[]	<->	

1234567890	next	PLU
[]	<->	

WAIT FOR RELEASE			
[*]<-YES	NO->[]		

1504 PLU Table Default Examples

Base	100	150	200	250	■■■	500	550	Custom
Code 1, Size 1	101	151	202	251	base 300 350 400 450	501	551	base + 1 See <i>Edit an ECU Setup File</i> to define your own base PLU.
Code 1, Size 2	102	152	202	252		502	552	base + 2
Code 1, Size 3	103	153	203	253		503	553	base + 3
Code 1, Size 4	104	154	204	254		504	554	base + 4
Code 2, Size 1	105	155	205	255		505	555	base + 5
Code 2, Size 2	106	156	206	256		506	556	base + 6
Code 2, Size 3	107	157	207	257		507	557	base + 7
Code 2, Size 4	108	158	208	258		508	558	base + 8
Code 3, Size 1	109	159	209	259		509	559	base + 9
Code 3, Size 2	110	160	210	260		510	560	base + 10
Code 3, Size 3	111	161	211	261		511	561	base + 11
Code 3, Size 4	112	162	212	262		512	562	base + 12
Code 4, Size 1	113	163	213	263		513	563	base + 13
Code 4, Size 2	114	164	214	264		514	564	base + 14
Code 4, Size 3	115	165	215	265		515	565	base + 15
Code 4, Size 4	116	166	216	266		516	566	base + 16
Code 5, Size 1	117	167	217	267		517	567	base + 17
Code 5, Size 2	118	168	218	268		518	568	base + 18
Code 5, Size 3	119	169	219	269		519	569	base + 19
Code 5, Size 4	120	170	220	270		520	570	base + 20
Code 6, Size 1	121	171	221	271		521	571	base + 21
Code 6, Size 2	122	172	222	272		522	572	base + 22
Code 6, Size 3	123	173	223	273		523	573	base + 23
Code 6, Size 4	124	174	224	274		524	574	base + 24
Code 7, Size 1	125	175	225	275		525	575	base + 25
Code 7, Size 2	126	176	226	276		526	576	base + 26
Code 7, Size 3	127	177	227	277		527	577	base + 27
Code 7, Size 4	128	178	228	278		528	578	base + 28

1504 PLU Example Table – Adding base numbers

Base	100	150	200	250	■■■	500	550	Custom
Code 8, Size 1	129	179	229	279	base 300 350	529	579	base + 29
Code 8, Size 2	130	180	230	280	400 450	530	580	base + 30
Code 8, Size 3	131	181	231	281		531	581	base + 31
Code 8, Size 4	132	182	232	282		532	582	base + 32
Code 9, Size 1	133	183	233	283		533	583	base + 33
Code 9, Size 2	134	184	234	284		534	584	base + 34
Code 9, Size 3	135	185	235	285		535	585	base + 35
Code 9, Size 4	136	186	236	286		536	586	base + 36
Code 10, Size 1	137	187	237	287		537	587	base + 37
Code 10, Size 2	138	188	238	288		538	588	base + 38
Code 10, Size 3	139	189	239	289		539	589	base + 39
Code 10, Size 4	140	190	240	290		540	590	base + 40
Code 11, Size 1	141	191	241	291		541	591	base + 41
Code 11, Size 2	142	192	242	292		542	592	base + 42
Code 11, Size 3	143	193	243	293		543	593	base + 43
Code 11, Size 4	144	194	244	294		544	594	base + 44
Code 12, Size 1	145	195	245	295		545	595	base + 45
Code 12, Size 2	146	196	246	296		546	596	base + 46
Code 12, Size 3	147	197	247	297		547	597	base + 47
Code 12, Size 4	148	198	248	298		548	598	base + 48
Code 13, Size 1	149	199	249	299		549	599	base + 49
Code 13, Size 2	150	200	250	300		550	600	base + 50
Code 13, Size 3	151	201	251	301		551	601	base + 51
Code 13, Size 4	152	202	252	302		552	602	base + 52
Code 14, Size 1	153	203	253	303		553	603	base + 53
Code 14, Size 2	154	204	254	304		554	604	base + 54
Code 14, Size 3	155	205	255	305		555	605	base + 55
Code 14, Size 4	156	206	256	306		556	606	base + 56
Code 15, Size 1	157	207	257	307		557	607	base + 57
Code 15, Size 2	158	208	258	308		558	608	base + 58
Code 15, Size 3	159	209	259	309		559	609	base + 59
Code 15, Size 4	160	210	260	310		560	610	base + 60

704 PLU Example Table – Adding base numbers

Base	100	150	200	250	...	500	550	Custom
Code 1, Size 1	101	151	201	251	base 300 350	501	551	base + 1
Code 1, Size 2	111	161	211	261		511	561	base + 11
Code 1, Size 3	121	171	221	271	400 450	521	571	Base + 21
Code 1, Size 4	131	181	231	281		531	581	Base + 31
Code 2, Size 1	102	152	202	252		502	552	Base + 2
Code 2, Size 2	112	162	212	262		512	562	Base + 12
Code 2, Size 3	122	172	222	272		522	572	Base + 22
Code 2, Size 4	132	182	232	282		532	582	Base + 32
Code 3, Size 1	103	153	201	253		503	553	Base + 3
Code 3, Size 2	113	163	213	263		513	563	Base + 13
Code 3, Size 3	123	173	223	273		523	573	Base + 23
Code 3, Size 4	133	183	233	283		533	583	Base + 33
Code 4, Size 1	104	154	204	254		504	554	Base + 4
Code 4, Size 2	114	164	214	264		514	564	Base + 14
Code 4, Size 3	124	174	224	274		524	574	Base + 24
Code 4, Size 4	134	184	234	284		534	584	Base + 34
Code 5, Size 1	105	155	205	255		505	555	Base + 5
Code 5, Size 2	115	165	215	265		515	565	Base + 15
Code 5, Size 3	125	175	225	275		525	575	Base + 25
Code 5, Size 4	135	185	235	285		535	585	Base + 35
Code 6, Size 1	106	156	206	256		506	556	Base + 6
Code 6, Size 2	116	166	216	266		516	566	Base + 16
Code 6, Size 3	126	176	226	276		526	576	Base + 26
Code 6, Size 4	136	186	236	286		536	586	Base + 36
Code 7, Size 1	107	157	207	257		507	557	Base + 7
Code 7, Size 2	117	167	217	267		517	567	Base + 17
Code 7, Size 3	127	177	227	277		527	577	Base + 27
Code 7, Size 4	137	187	237	287		537	587	Base + 37

Connect the ECU to a Printer

In addition to connecting the cable between the ECU and printer, turn off the POS interface so reports will be sent to the printer.



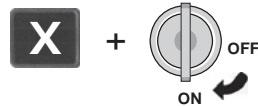
Printer (Epson TM-U200)

Attach printer cable



To connect the ECU to a printer:

1. Connect a null modem cable from the printer to the back of the ECU using the 9-pin Printer/POS port. Tighten the connecting screws.



To set up the printer interface:

1. Access the Communications menu by pressing "X" while turning the key from OFF to ON.

2. Press "X" to turn off the POS interface.
The Print option will now display when you run reports.

Press

3. When you're ready to exit the Communications menu, turn the key to OFF.

Notes

- If the ECU is connected to a POS terminal, there is no Print option available when you run reports.

All changes are saved as you make them.

The switch settings for an EPSON TM-U200 printer are:

1	2	3	4	5	6	7	8		
		DS W1	0	1	0	0	0	0	0
		0							
		DS W2	1	0	0	0	0	0	0
		0							

These settings are:

Baud Rate	9600
Data	8 bits
Parity	None
Stop	1 or more
Handshake	XON/XOFF

To view the EPSON TM-U200 printer's setup parameters, press in the FEED button and turn the power on. The current settings are printed out.

SECTION 3 ECU Setup

Set up pouring options at the ECU using the Setup menu. (For help copying setup values to another ECU or using an ECU setup file, see the *ECU Files* section.) Refer to this section for help with the following tasks:

Set Up Portion Size Reset	3-2
Set Up Restart Pour Delay	3-3
Disable Portion Sizes	3-4
Set a Default Portion Size	3-5
Enable Bartender Z	3-6

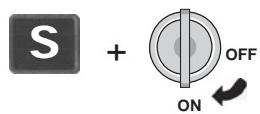
Set Up Portion Size Reset

Portion Size Reset means the ECU automatically resets the portion size to the default size after every pour. This saves the bartender the extra step of pressing the size button for every default size pour. To set up your default portion size see *Set A Default Portion Size* in this section.

How it works

If you select OFF, the ECU doesn't reset the portion size. If you select ON, the ECU resets the portion size to the default size after every pour. (You can still press the other size buttons.)

■ To set portion size reset:



1. Access the Setup menu by pressing "S" while turning the key from OFF to ON.

2. Press "S" to select SIZE-RESET.

OR

Press "X" to turn off SIZE-RESET.

3. When you're ready to exit the Setup menu, turn the key to OFF.



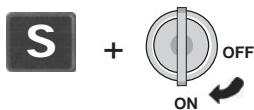
Set Up Repeat Pour Delay

Repeat Pour Delay is convenient when you're pouring multiple identical drinks. With this feature enabled, a coded pourer continues to pour identical drinks at a specified interval as long as the pourer is inverted.

How it works

If you enable Repeat Pour Delay, you can pour a drink and then move the inverted pourer over another glass and a second pour begins after the selected interval. If you disable this feature, you must tip the bottle upright when you finish a pour and then invert it again to pour an identical drink.

To set restart pour delay:



1. Access the Setup menu by pressing "S" while turning the key from OFF to ON.



2. Press repeatedly until you see this screen.

3. Press "S" to select REPEAT-POUR.

OR

Press "X" to turn off REPEAT-POUR.



4. If you enabled repeat pour delay, press to set the number of delay seconds.

Press "L" to increase the delay by .2 seconds.

Press "X" to decrease the delay by .2 seconds.

5. When you're ready to exit the Setup menu, turn the key to OFF.

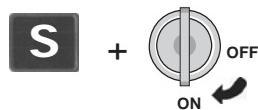
Disable Portion Sizes

You can disable any portion sizes you don't need or don't want bartenders to use. Disabling a size disables it for all pourer codes.

How it works

You can disable any portion size (S, R, L, X). When a size is disabled, drinks cannot be poured using that size button, no matter which pourer code is used. You can disable up to 3 sizes at one time. You can enable or disable sizes at any time. Disabled sizes do not appear on the display.

■ To disable portion sizes:



Size "X" is disabled.

1. Access the Setup menu by pressing “S” while turning the key from OFF to ON.
2. Press repeatedly until you see this screen.
3. Press the size button(s) you want to disable (S, R, L or X). To enable a disabled size, press the same size button. (The disabling feature toggles on and off.)
4. When you're ready to exit the Setup menu, turn the key to OFF.

Notes

- To disable a particular pourer code/portion size combination, see *Calibrate Portion Sizes* in the *All-Bottle Pouring* section.
- To disable all 4 sizes, turn the ECU off.

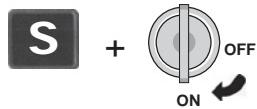
Set a Default Portion Size

You can specify any portion size (S, R, L, X) as your default size. The default size is only used if you've enabled Portion Size Reset. See *Set Up Portion Size Reset* in this section.

How it works

Your default size should be the portion size you use most often. If you enable Portion Size Reset, the ECU resets the portion size to your default size after every pour. This saves the extra step of pressing the portion size button for a default size pour. You can change your default size at any time.

To set a default portion size:



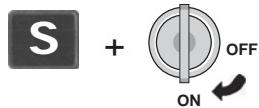
Size "R" is the default size.

1. Access the Setup menu by pressing “S” while turning the key from OFF to ON.
2. Press repeatedly until you see this screen.
3. Press the size button(s) you want as your default size (**S, R, L or X**).
4. When you're ready to exit the Setup menu, turn the key to OFF.

Enable Bartender Z

If you enable Bartender Zero, any and all bartenders will be able to zero out current sales at any time without a key.

■ To set the Bartender Zero option:



1. Access the Setup menu by pressing "S" while turning the key from OFF to ON.
2. Press  repeatedly until you see this screen.
3. Press "S" to enable Bartender Zero. This means current totals can be zeroed when totals are read or printed without a key in the User Reports menu.
OR
Press "X" to disable Bartender Zero. This means current totals can only be zeroed with a key in the Z-Report menu.
4. When you're ready to exit the Setup menu, turn the key to OFF.

SECTION

4

ECU Setup Files

Using a null modem cable, you can quickly copy ECU setup values to additional ECUs. You can also set up ECUs with a setup file you edit at a computer. Refer to this section for help with the following tasks:

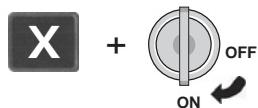
Copy Setup Values to Another ECU	4-2
Export ECU Setup Values to a File	4-4
Import ECU Setup Values from a File	4-6
Berg Terminal Software	4-8
Edit an ECU Setup File	4-10

Copy Setup Values to Another ECU

Use this feature after you've set up one ECU to copy its values to any other 704/1504 ECU.

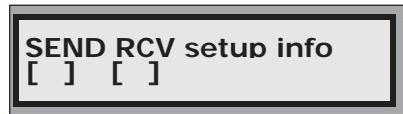
■ To copy ECU values to another ECU:

1. Connect a null modem cable (Berg PN 8007020) to the back of one ECU using the 9-pin POS port. Connect the other end to the back of the other ECU. Tighten all connecting screws.



2. On both ECUs, access the Communications menu by pressing "X" while turning the key from OFF to ON.

3. Press repeatedly until you see this screen.



4. On the receiving ECU, press the "R" button.

The values are coming "in" to this ECU. Be sure the receiving ECU is in this mode before you send the copy.

5. On the sending ECU, press "S".

The values are going "out" of this ECU. As soon as you press "S", the values are sent.

6. Repeat steps 1-5 for any ECU that needs a copy of the original ECU values.
7. When you're ready to exit the Setup menu, turn the key to OFF.
8. Disconnect the cable from the ECUs.

Note

- If you do not have a null modem cable, you can use Berg's universal POS interface cable kit (Berg PN 8009092).

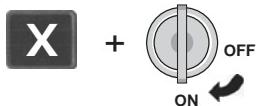


Attach null modem cable here
(on both ECUs)

Export ECU Setup Values to a File

Use this feature to copy an ECU's setup values to a computer text file. A computer file provides archive storage of setup values and/or permits further editing of setup values at the computer.

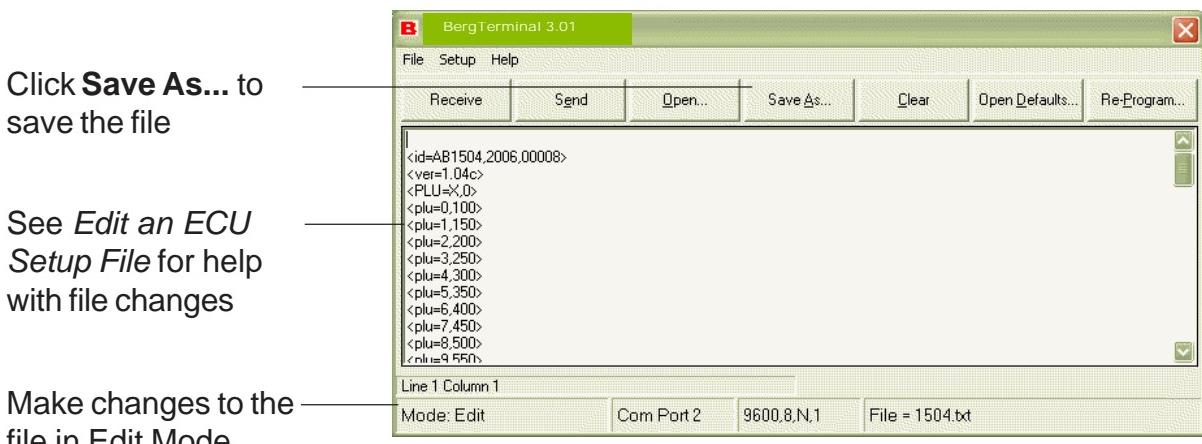
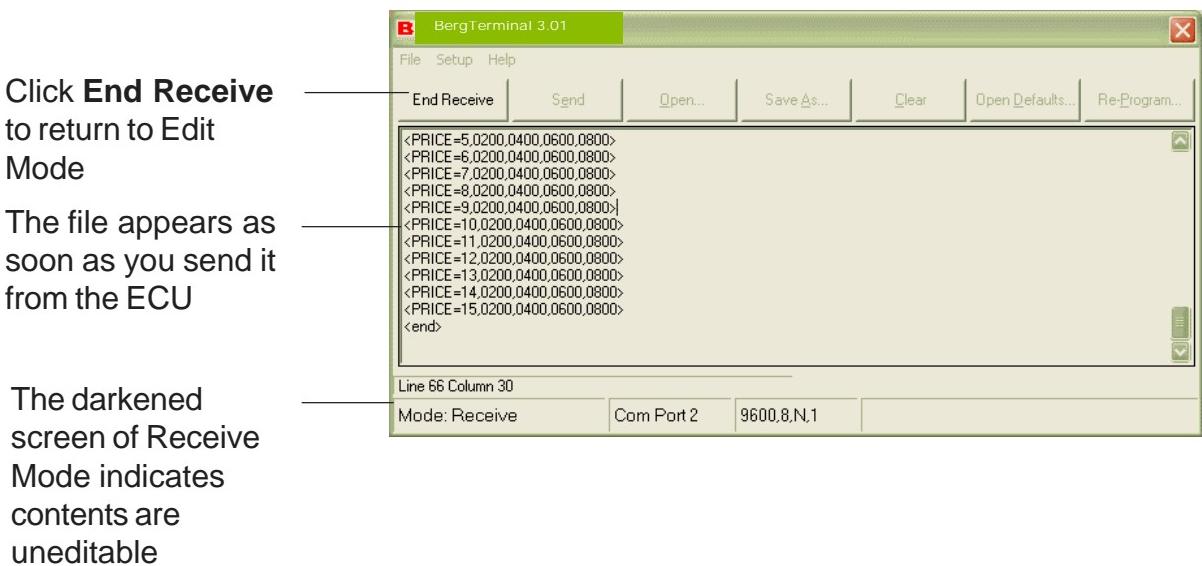
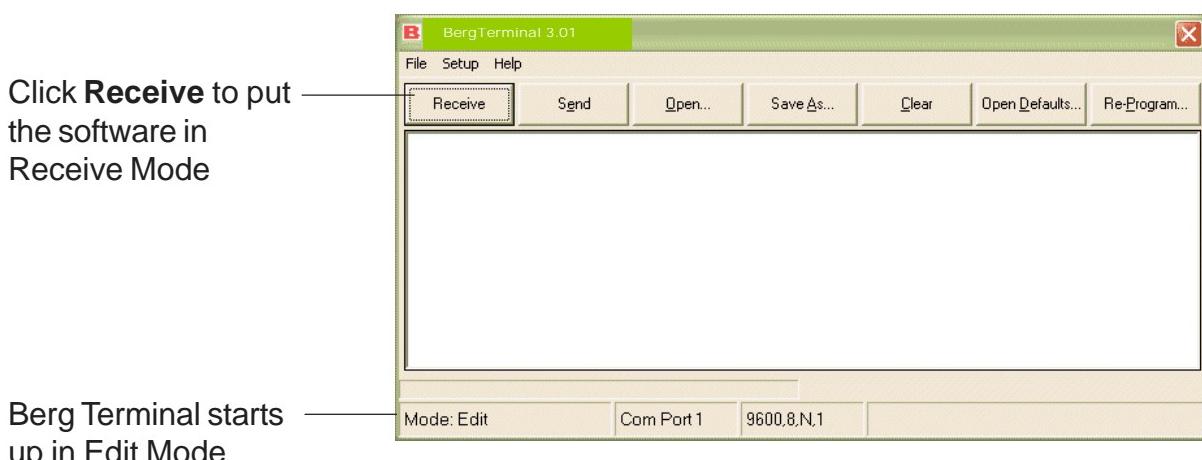
■ To export ECU values to a file:

1. Connect a null modem cable (Berg PN 8007020) to a COM port on the computer. Connect the other end to the back of the ECU using the 9-pin POS port. Tighten all connecting screws.
2. Run Berg Terminal software on the computer. Make sure the communication settings are correct. (See *Berg Terminal Software* in this section.)
3. At the computer, click **Receive**. Be sure the software is in "Receive Mode" before exporting from the ECU.
4. At the ECU, access the Communications menu by pressing "X" while turning the key from OFF to ON.

5. Press  repeatedly until you see this screen.

6. Press "S".
The values are going "out" of this ECU. As soon as you press "S", the values are sent.
7. Click **End Receive** at the computer once you see the file.
8. Edit, save and/or print the text file received at the computer. See *Edit an ECU Setup File* in this section.
9. To send a file back to the ECU from the computer, see *Import ECU Setup Values from a File* in this section.
10. When you've finished all communications, disconnect the null modem cable from the ECU and computer.

Note

- If you do not have a null modem cable, you can use Berg's universal POS interface cable kit (Berg PN 8009092).



Import ECU Setup Values from a File

Use this feature to set up an ECU by importing all setup values from a computer text file. To create or edit a setup file, see *Edit an ECU Setup File* in this section.

If you do not have a null modem cable, you can use Berg's universal POS interface cable kit (Berg PN 8009092).

■ To import ECU setup values from a file:

1. Connect a null modem cable (Berg PN 8007020) to a COM port on the computer. Connect the other end to the back of the ECU. Tighten all connecting screws.
2. Run Berg Terminal software on the computer. Make sure the communication settings are correct. (See *Berg Terminal Software* in this section.)
3. Click **Open...** to find the setup file for the ECU (if it's not already on the screen).
4. At the ECU, access the Communications menu by pressing "X" while turning the key from OFF to ON.

5. Press  repeatedly until you see this screen.

6. Press "R".

The values are coming "in" to this ECU.

Be sure the ECU is in this mode before you send the file.

7. At the computer, click **Send**.
8. Click **Yes** to verify the data sent to the ECU.
9. At the ECU, press "S".

You're sending a copy of the file the ECU received back to the computer for verification.

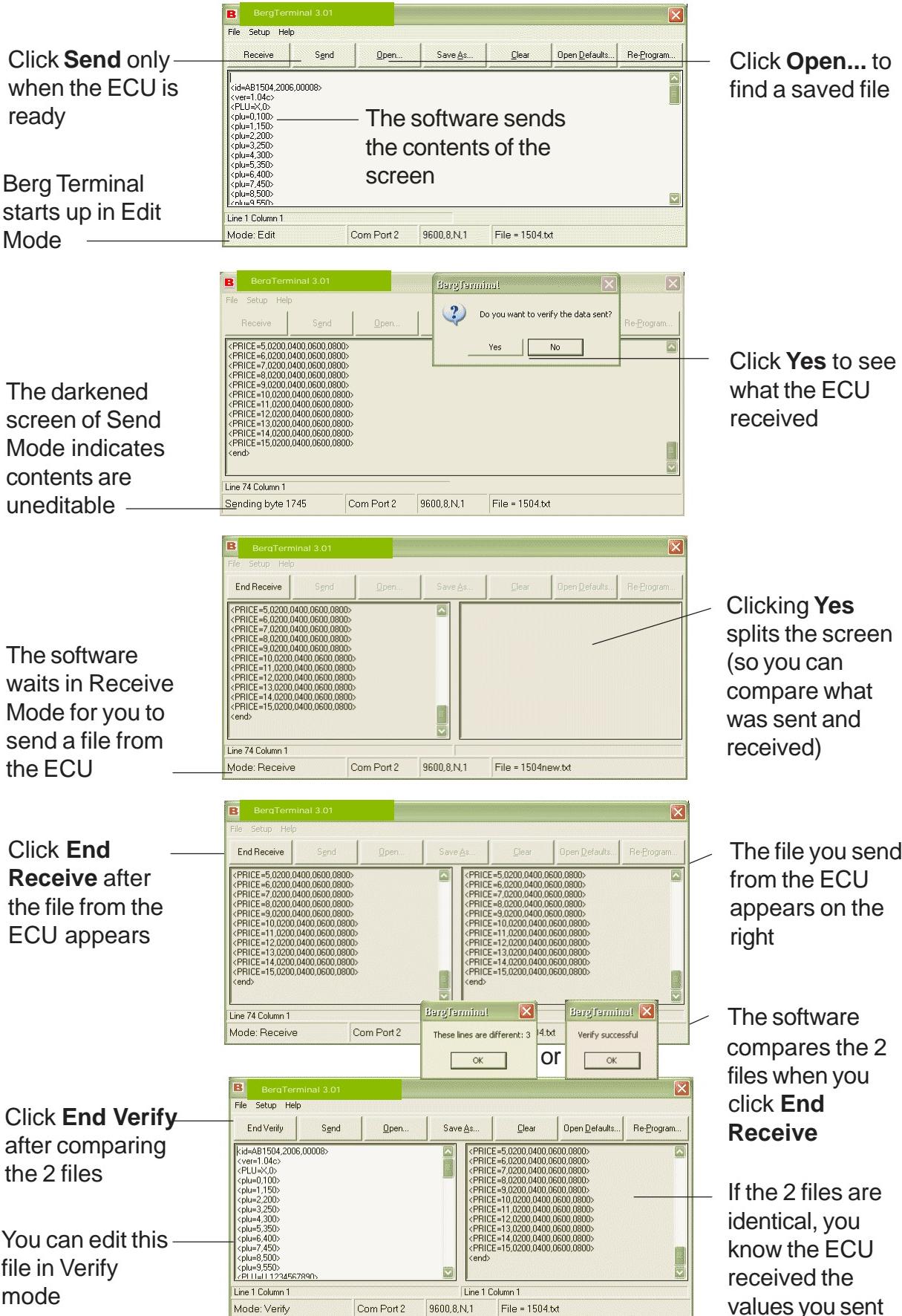
10. At the computer, click **End Receive**.

Berg Terminal compares the file sent from the computer (left window) with the file received at the ECU (right window) and displays the result. Click **OK**.

11. After reviewing the two files, click **End Verify**.

If the file was not received correctly, make any edits at the computer and repeat steps 6-11 to send and verify again.

12. When you've finished all communications, disconnect the null modem cable from the ECU and computer.

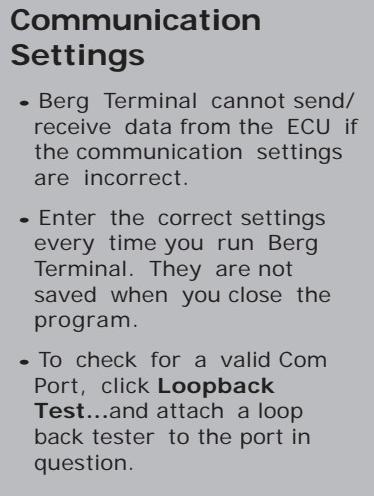


Berg Terminal Software

These steps illustrate installation and use of Berg's terminal emulation program, *Berg Terminal*.

To use the Software:

1. Install the software from the CD following the prompts.
2. Run Berg Terminal (**Start | Programs | Berg Terminal**).
3. Click **Setup | Communications....**



Enter the computer **Com Port** number used for a cable connection to the ECU. Select **704/1504** as the **Setup Mode**. Click **Save**.

4. To receive a setup file from the ECU, see *Export ECU Setup Values to a File* in this section.
5. To open a setup file already saved on the computer, click **Open...** and select the file.
6. To see a default setup file, click **Open Defaults...**. Select **704/1504** as the ECU type and click **Continue**.

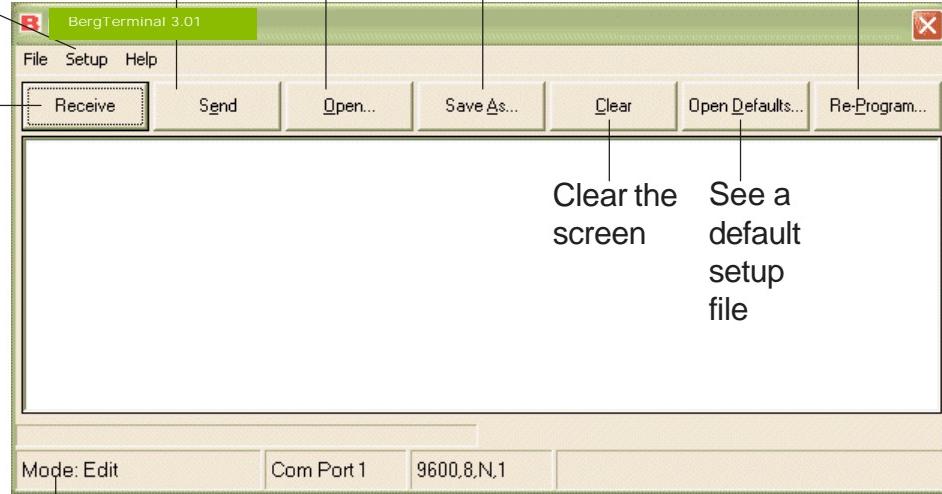
Use this feature to create a new setup file, or to revert to defaults when you're editing a file. If you have a file on the screen, the default replaces it. If you don't want the screen contents deleted, save to a file before opening defaults.
7. To edit a setup file you've opened or received from the ECU, see *Edit an ECU Setup File* in this section.
8. To save a copy of a file to the computer, click **Save As...** and enter a file name.
9. To send a setup file to the ECU, see *Import ECU Setup Values from a File* in this section.
10. To send a firmware upgrade file to the ECU, see *Upgrade ECU Firmware* in the *ECU Firmware* section.

Follow the prompts to quickly install Berg Terminal



Enter communication settings Send a file to the ECU Open a file you've saved Save screen contents to a file Upgrade ECU firmware

Receive a file from the ECU

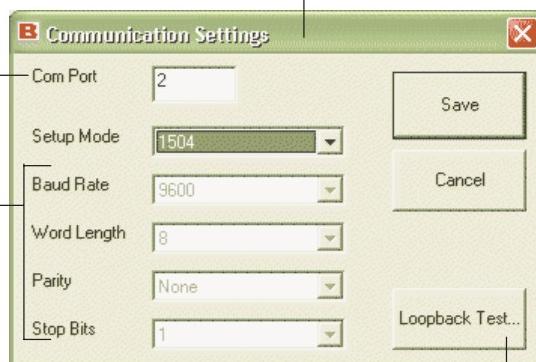


Note which mode you're in

Enter correct Communication Settings each time you run Berg Terminal

The port where you've attached the ECU cable

These entries are automatically set when you select 704/1504 Setup Mode



To check a com port (its number or validity) click here and attach a loopback tester to the port

Edit an ECU Setup File

Use Berg Terminal to create a new setup file or export a setup file from an ECU and edit the values. For help with ECU setup options see tasks in the *ECU Setup* section.

File Parameters

- Editable text is *italicized* in the Sample ECU Setup File.
- **Bold** text in the sample file is required to start and end the file.
- You can create a file with only the setup items you want changed.
- Example files:

```
<id=AB704/1504>
<pwor=T>
<end>
```

This file changes only Pour Without Release.

```
<id=AB704/1504>
<plu=X,U>
<plu=U, 2000>
<end>
```

This file changes the selected PLU Base to PLU-U and sets the PLU base number to 2000.

Pour Times

- OZ	Time
.25	045 (0.45 sec)
.50	085 (0.85 sec)
.75	125 (1.25 sec)
1.00	165 (1.65 sec)
1.25	205 (2.05 sec)
1.50	245 (2.45 sec)
1.75	280 (2.80 sec)
2.00	320 (3.20 sec)

- OZ	Time
15	090(0.90 sec)
20	115(1.15 sec)
25	135(1.35 sec)
30	165(1.65 sec)
35	195(1.95 sec)
40	225(2.25 sec)
45	255(2.55 sec)
50	285(2.85 sec)

■ To edit an ECU setup file:

1. Create or access the text file. Click **Open Defaults...** (in Berg Terminal) for a default AB704/1504 setup file.
2. Edit the PLU Base by entering 0-9 or U for *n* in the **<PLU=X,*n*>** line. See *PLU Table* in the *Installation* section.
3. If you selected "U" as a PLU Base (i.e., **<PLU=X,U>**), enter a PLU base number for *n* in the **<PLU=U,*n*>** line.
See *PLU Table* in the *Installation* section for a PLU list.
4. Edit the Interface protocol by entering POS or NONE for *n* in the **<INTRF=*n*>** line.
5. Edit Pour Without Release **<PWOR>**, Portion Size Reset **<RSIZE>**, or Bartender Zero **<BARZ>** by entering T or F.
6. Edit Default Size **<DSIZE>** by entering S, R, L or X.
7. Edit Disable Portion Sizes **<XSIZE>** by entering S, R, L, and/or X.
8. Edit Repeat Pour Delay **<RPDELAY>** by entering 0-500. (100 = 1 second, 200 = 2 seconds, 300 = 3 seconds, etc.)
9. Edit Pour Times by entering new numbers for any pourer code(1-15) / portion size(S,R,L,X) in the **<CAL=1-15,*n,n,n,n*>** lines. See the *Pouring Times* sidebar.
10. Edit Prices by entering new numbers for any pourer code(1-15) / portion size(S,R,L,X) in the **<PRICE=1-15,*n,n,n,n*>** lines.
11. Make sure the file starts with the required first line and ends with the required last line. Other lines can be in any order.
12. Save the file with a unique name. You can create multiple files with unique names each changing specific setup items.

Sample ECU Setup File

<code><id=AB704/1504, 2006, 00003></code>	ECU type, model year, serial number
<code><ver=3.01></code>	ECU firmware version
<code><PLU=X,0></code>	PLU Base (0-9, U)
<code><plu=0,100></code>	List of PLU Bases
<code><plu=1,150></code>	
<code><plu=2,200></code>	
<code><plu=3,250></code>	
<code><plu=4,300></code>	
<code><plu=5,350></code>	
<code><plu=6,400></code>	
<code><plu=7,450></code>	
<code><plu=8,500></code>	
<code><plu=9,550></code>	
<code><PLU=U,1234567890></code>	
<code><INTRF=NONE></code>	User-defined PLU base (set <code><plu=x,U></code>)
<code><PWOR=F></code>	Interface protocol (POS, NONE)
<code><RSIZE=T></code>	Pour Without Release (T or F)
<code><DSIZE=R></code>	Portion Size Reset (T or F)
<code><XSIZE=></code>	Default Portion Size (S, R, L or X)
<code><RPDELAY=0></code>	Disable Portion Sizes (S, R, L and/or X)
<code><BARZ=F></code>	Repeat Pour Delay (0-500) 100=1 sec)
<code><CAL=1,0105,0195,0270,0350></code>	Bartender Zero (T or F)
<code><CAL=2,0105,0195,0270,0350></code>	
<code><CAL=3,0105,0195,0270,0350></code>	
<code><CAL=4,0105,0195,0270,0350></code>	
<code><CAL=5,0105,0195,0270,0350></code>	
<code><CAL=6,0105,0195,0270,0350></code>	
<code><CAL=7,0105,0195,0270,0350></code>	
<code><CAL=8,0105,0195,0270,0350></code>	
<code><CAL=9,0105,0195,0270,0350></code>	
<code><CAL=10,0105,0195,0270,0350></code>	
<code><CAL=11,0105,0195,0270,0350></code>	
<code><CAL=12,0105,0195,0270,0350></code>	
<code><CAL=13,0105,0195,0270,0350></code>	
<code><CAL=14,0105,0195,0270,0350></code>	
<code><CAL=15,0105,0195,0270,0350></code>	
<code><ring=0,3700,4300,3900,4400></code>	Pourer/Portion Sets (showing pour times for S, R, L, X)
<code><ring=1,0000,2100,2200,4100></code>	
<code><ring=2,1550,0000,1350,4200></code>	
<code><ring=3,0000,0000,1250,4050></code>	
<code><ring=4,2500,2150,0000,4000></code>	
<code><ring=5,0000,1100,0000,4056></code>	
<code><ring=6,1400,0000,0000,3850></code>	
<code><ring=7,0000,0000,0000,3750></code>	
<code><ring=8,3050,3300,2700,0000></code>	
<code><ring=9,0000,1950,2100,0000></code>	
<code><ring=10,1550,0000,1050,0000></code>	
<code><ring=11,0000,0000,0850,0000></code>	
<code><ring=12,2450,2150,0000,0000></code>	
<code><ring=13,0000,1150,0000,0000></code>	
<code><ring=14,1450,0000,0000,0000></code>	
<code><ring=15,0000,0000,0000,0000></code>	
<code><set=0,0085,0165,0245,0325></code>	
<code><set=1,0105,0195,0270,0350></code>	
<code><set=2,0075,0140,0210,0280></code>	
<code><set=3,0100,0195,0290,0385></code>	
<code><PRICE=1,0200,0400,0600,0800></code>	
<code><PRICE=2,0200,0400,0600,0800></code>	
<code><PRICE=3,0200,0400,0600,0800></code>	
<code><PRICE=4,0200,0400,0600,0800></code>	
<code><PRICE=5,0200,0400,0600,0800></code>	
<code><PRICE=6,0200,0400,0600,0800></code>	
<code><PRICE=7,0200,0400,0600,0800></code>	
<code><PRICE=8,0200,0400,0600,0800></code>	
<code><PRICE=9,0200,0400,0600,0800></code>	
<code><PRICE=10,0200,0400,0600,0800></code>	
<code><PRICE=11,0200,0400,0600,0800></code>	
<code><PRICE=12,0200,0400,0600,0800></code>	
<code><PRICE=13,0200,0400,0600,0800></code>	
<code><PRICE=14,0200,0400,0600,0800></code>	
<code><PRICE=15,0200,0400,0600,0800></code>	
<code><end></code>	

Activator Ring Alignment
Numbers for each pourer

Prices S, R, L, X for each
pourer (0200 = \$2.00)

SECTION
5

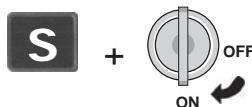
All-Bottle Pouring

Once your **All-Bottle 704/1504** system is installed, you're ready to begin pouring. This section provides help with the following tasks:

Select Portion Size Set	5-2
Set Portion Sizes and Prices	5-4
Pouring Operations	5-6
User (X) Reports	5-8
Z Reports	5-10

Select Portion Size Set

You may want to perform this task to select a different default portion size set. The 704/1504 ECU comes with Set 2 as its factory default portion size set.



To select a portion size set:

1. Access the Setup menu by pressing "S" while turning the key from OFF to ON.
2. Press repeatedly until you see this screen.

3. Press "S" to select ounces or press "R" to select milliliters.
This is your first selection on the way to selecting a default set of pour times.
Press
4. Press "S" to select Basic or press "R" to select Alternate.
This is your default portion size set. The differences in these selections are shown in the *Portion Size Sets* graphic on the next page.

Notes

- Each combination of selections is called a Portion Size set. These sets are referenced by set number in an ECU setup file.
- After selecting a default set as a starting point, you may need to adjust the actual pour times to achieve accurate drink amounts. See *Set Portion Sizes and Prices* in this section.

Portion Size Sets measured in ounces

Set 1 oz/Basic

Size	Oz	Pour Time
S-	.5 oz	085
R-	1.0 oz	165
L-	1.5 oz	245
X-	2.0 oz	325

Set 2 oz/Alternate

Size	Oz	Pour Time
S-	.65 oz	105
R-	1.25 oz	195
L-	1.75 oz	270
X-	2.25 oz	350

Portion Size Sets measured in milliliters

Set 3 ml/Basic

Size	ml	Pour Time
S-	15 ml	075
R-	25 ml	140
L-	35 ml	210
X-	45 ml	280

Set 4 ml/Alternate

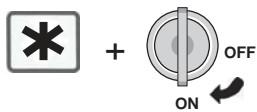
Size	ml	Pour Time
S-	20 ml	100
R-	30 ml	195
L-	50 ml	290
X-	60 ml	385

All Pour Times are shown in hundredths of seconds. For example a 165 pour time = 1.65 seconds.

Set Portion Sizes and Prices

Set a pouring time and price for **S**, **R**, **L**, **X** for each of the 15 pourers being used. You may wish to choose a different default portion size set first (see *Select Portion Size Set*). The factory default is Set 1.

■ To set portion sizes and prices:



1. Access the Price/Portion Setup menu by pressing “*” while turning the key from OFF to ON.

The portion size for **Code 01** are displayed.

- Sizes **S** and **R** are shown on the left side and sizes **L** and **X** on the right side.
- Each portion is shown in ounces.

2. To change a portion size:



- Press **S** or **R** or **L** or **X**.
- The size you press flashes.
- Press **↑** or **↓** to change the portion size by 1/10 oz. (Press and hold to start changing by 1/10 oz.)
- To save a portion size, re-press the current portion size button (or press another portion size button). The portion size is saved and the size stops flashing.

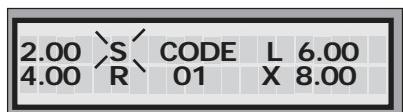
3. To change a price for a portion size:



- Press **S** or **R** or **L** or **X**.
- The size you press flashes.
- Press ***** to see prices (this toggles portions and prices).
- Press **↑** or **↓** to change the price by \$.01. (Press and hold to start changing by \$.10.)
- To save a price, re-press the current portion size button (or press another portion size button). The price is saved and the size stops flashing.

4. To view a different pourer Code, press **↓** repeatedly until you see the Code you want. (You can't do this if a portion size is flashing.)

5. Repeat steps 2 and 3 for every portion size of every pourer code you want to change.



Notes

- To check your pouring times, pour sample drinks into a graduated cylinder for each size of each code you've set. Check the measured amount and adjust each pour time accordingly.

Pouring Operations

■ To pour a drink:



R



Code 10
R

379

1. Insert the key and turn to the ON position.
2. Remove the key.

The LCD displays the portion size (**S** is Small, **R** is Regular, **L** is Large and **X** is Extra Large).

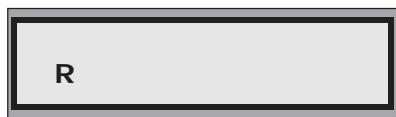
3. Press **S** or **R** or **L** or **X**.

4. Insert a bottle with a coded pourer into the activator ring.
Using the finger grip on the activator ring, quickly invert the bottle to a near vertical position over a glass to start the pour. (If the pour doesn't begin, quickly tip the bottle upright and then back to a vertical position over the glass. If the pour splashes sideways, you may not have tipped to a vertical position quickly enough.)

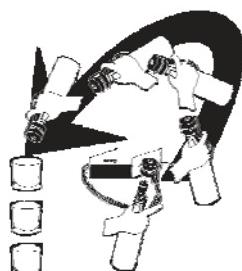
The display shows the pourer code and portion size of this pour and the total number of pours at this pourer code and portion size (including the current pour).

5. When the pour ends, tip the bottle upright.

If you've enabled Portion Size Reset, the portion size reverts to your default size after every pour.



R



Code 10
R

380

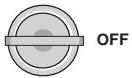
■ To pour two or more identical drinks:

1. When the first pour ends, quickly position the bottle over a new glass (still holding the bottle in a vertical pouring position).

If you've enabled **Restart Pour Delay**, a new pour commences at the delay you've set. Pours keep repeating as long as you keep the bottle inverted. (To start a new pour in less than the delay, give the inverted bottle a quick shake.)

If you haven't enabled **Restart Pour Delay**, you must give the inverted bottle a quick shake to begin a repeat pour.

The display continues to increment the total number of pours for this pourer code and portion size.



■ To disable pouring:

1. Insert the key and turn to the OFF position.
2. Remove the key.

Station Disabled

User (X) Reports

X reports can be viewed or printed. Pour totals and price totals can only be cleared in this mode if you've enabled Bartender Z. See *Enable Bartender Z* in the *ECU Setup* section.

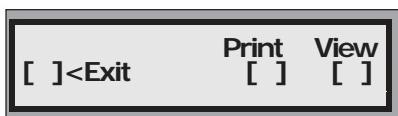
■ To generate user (X) reports:

R + *****

1. Press “R” and “*” (while in the ON position).



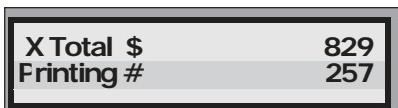
2. Press **↓** to view or print a complete X report.



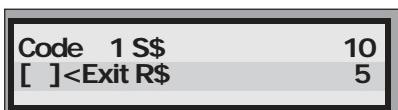
3. Press **L** to send a complete X report to the printer.

Press **X** to view a complete X report by scrolling through each pourer code's totals.

Press **S** to exit the User Reports menu.



You will see this screen while the report is sent out the serial port to a printer or to a PC. (You can “print” the report to a PC using Berg Terminal in the receive mode. Then save the “print-out” to a file.)



Immediately after printing, or if you're viewing the report, you'll see this screen. Press **↓** repeatedly to scroll through totals for each pourer code.



Press ***** to toggle between sales totals and pour counts.

■ To clear sales (Bartender Z):



1. Press **X** when prompted, to print or view a Z report.

This clears all sales and pour totals. (This feature must be

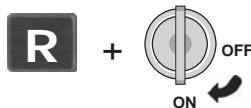
Example: X Report

AB704/1504 - BERG LLC				
s/n: 2000-0000				
Ver: 3.01				
X-Report				
C	S	PRICE	POURS	SALES
1	S	2.00	15	30.00
1	R	4.00	55	220.00
1	L	6.00	12	72.00
1	X	8.00	12	96.00
2	S	2.00	15	30.00
2	R	4.00	39	156.00
2	L	6.00	14	84.00
2	X	8.00	11	88.00
3	S	2.00	15	30.00
3	R	4.00	11	44.00
3	L	6.00	6	36.00
3	X	8.00	4	32.00
4	S	2.00	5	10.00
4	R	4.00	4	16.00
4	L	6.00	6	36.00
4	X	8.00	7	56.00
5	S	2.00	6	12.00
5	R	4.00	5	20.00
5	L	6.00	4	24.00
5	X	8.00	3	24.00
6	S	2.00	2	4.00
6	R	4.00	5	20.00
6	L	6.00	3	18.00
6	X	8.00	1	8.00
7	S	2.00	5	10.00
7	R	4.00	7	28.00
7	L	6.00	5	30.00
7	X	8.00	4	32.00
8	S	2.25	3	6.75
8	R	4.50	4	18.00
8	L	6.75	2	13.50
8	X	9.25	5	46.25
9	S	1.90	3	5.70
9	R	3.80	9	34.20
9	L	5.75	3	17.25
9	X	7.65	3	22.95
10	S	2.00	5	10.00
10	R	4.00	10	40.00
10	L	6.00	3	18.00
10	X	8.00	2	16.00
11	S	2.00	6	12.00
11	R	4.00	5	20.00
11	L	6.00	7	42.00
11	X	8.00	4	32.00
12	S	2.00	6	12.00
12	R	4.00	3	12.00
12	L	6.00	4	24.00
12	X	8.00	2	16.00
13	S	2.00	3	6.00
13	R	4.00	12	48.00
13	L	6.00	3	18.00
13	X	8.00	4	32.00
14	S	2.00	3	6.00
14	R	4.00	7	28.00
14	L	6.00	7	42.00
14	X	8.00	4	32.00
15	S	2.00	0	0.00
15	R	17.50	81	1417.50
15	L	6.00	0	0.00
15	X	8.00	0	0.00
TOTALS		494	3,314.10	

Z Reports

Viewing or printing a Z report clears all sales and pour count totals from the ECU. You must have a key to perform this operation unless you've enabled Bartender Z. See *Enable Bartender Z*.

■ To generate Z reports:

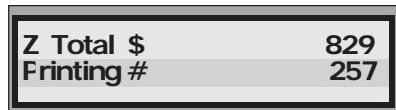


1. Insert the key.
2. Press “R” while turning the key from OFF to ON.

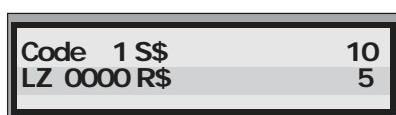


The display shows total sales and total pours from the last Z, (and the number of the last Z).

3. Press
4. Press to view/print all totals since the last Z (this clears all totals).
Press to view or print the last Z report.
5. Press to send the report to the printer.
Press to view details of the report.



You will see this screen while the report is sent out the serial port to a printer or to a PC.



Immediately after printing, or if you're viewing the report, you'll see this screen. Press repeatedly to scroll through totals for each pourer code.



Press to toggle between sales totals and pour counts.

Note

- You can “print” the report to a PC using Berg Terminal in the receive mode. Then save the “print-out” to a file. (Connect a null-modem or Berg universal POS interface cable from the computer's COM port to the ECU's 9-pin Printer/POS port.)

Example: Z Report

B704/1504 - BERG LLC				
s/n: 2000-0000				
Ver: 3.01				
Z Report				
LAST Z NUM: 10 Z NUMBER: 11				
C	S	PRICE	POURS	SALES
1	S	2.00	4	8.00
1	R	4.00	31	124.00
1	L	6.00	6	36.00
1	X	8.00	8	64.00
2	S	2.00	16	32.00
2	R	4.00	27	108.00
2	L	6.00	2	12.00
2	X	8.00	4	32.00
3	S	2.00	4	8.00
3	R	4.00	3	12.00
3	L	6.00	5	30.00
3	X	8.00	8	64.00
4	S	2.00	4	8.00
4	R	4.00	6	24.00
4	L	6.00	5	30.00
4	X	8.00	7	56.00
5	S	2.00	6	12.00
5	R	4.00	5	20.00
5	L	6.00	4	24.00
5	X	8.00	3	24.00
6	S	2.00	5	10.00
6	R	4.00	6	24.00
6	L	6.00	4	24.00
6	X	8.00	3	24.00
7	S	2.00	4	8.00
7	R	4.00	7	28.00
7	L	6.00	3	18.00
7	X	8.00	2	16.00
8	S	2.25	2	4.50
8	R	4.50	2	9.00
8	L	6.75	2	13.50
8	X	9.25	2	18.50
9	S	1.90	3	5.70
9	R	3.80	3	11.40
9	L	5.75	3	17.25
9	X	7.65	3	22.95
10	S	2.00	5	10.00
10	R	4.00	5	20.00
10	L	6.00	5	30.00
10	X	8.00	4	32.00
11	S	2.00	2	4.00
11	R	4.00	2	8.00
11	L	6.00	3	18.00
11	X	8.00	4	32.00
12	S	2.00	4	8.00
12	R	4.00	4	16.00
12	L	6.00	4	24.00
12	X	8.00	4	32.00
13	S	2.00	4	8.00
13	R	4.00	3	12.00
13	L	6.00	4	24.00
13	X	8.00	2	16.00
14	S	2.00	3	6.00
14	R	4.00	4	16.00
14	L	6.00	4	24.00
14	X	8.00	3	24.00
15	S	2.00	0	0.00
15	R	17.50	61	1067.50
15	L	6.00	0	0.00
15	X	8.00	0	0.00
Z NUMBER: 11				
TOTAL 347 2,422.30				
LAST Z NUM: 10				
TOTAL 494 3,314.10				

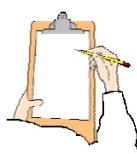
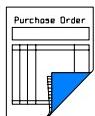
SECTION

6 Financial Controls

The suggestions in this section can help you manage your bar using the **All-Bottle704/1504** system.

Purchasing and Receiving	6-2
Bottle Storage	6-3
Storeroom Instructions (Form)	6-4
Inventory Card (Form)	6-5
Stocking the Bar	6-6
Bar Requisition (Form)	6-7
Physical Inventory	6-8
Beverage Inventory (Form)	6-9
Monthly Profitability	6-10
All-Bottle Pour Counts and Cash Balancing	6-11
Cash Balance Sheet (Form)	6-12
Cash Adjustment Sheet (Form)	6-14

Purchasing and Receiving



1. Prepare a written purchase order even when the order has been placed by phone. It is a safeguard against unauthorized substitutions in brands or bottle sizes.
 2. When liquor deliveries are made, have one individual check the shipment into stock.
 3. The person ordering should not have the responsibility for receiving.
 4. Prepare a written receiving record from the actual merchandise rather than using the delivery slip.
 5. Have an additional staff member record the shipment.
 6. As soon as the shipment is recorded, place the merchandise in a LOCKED liquor storeroom IMMEDIATELY.

A large part of loss in liquor is due to theft of unattended goods at the time of receiving. Don't let a shipment sit around waiting to be checked in.

Bottle Storage



1. Keep your liquor storeroom locked at all times.



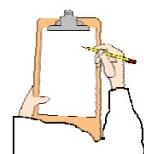
2. Keep keys ONLY in the hands of the responsible person and the manager/owner.

3. Keep only liquor, wine and beer in the storage area. Storing grocery items, syrup tanks or inventory leaves too many people accessible to the storage area.



4. Have adequate shelving in the storeroom for the placement of all bottle stock by type of liquor, e.g., all gins together, all vodkas together, all scotches together, etc.

5. Place bottles on shelves in the same order as they are placed on the back bar and speed rail--it speeds up taking physical inventory.



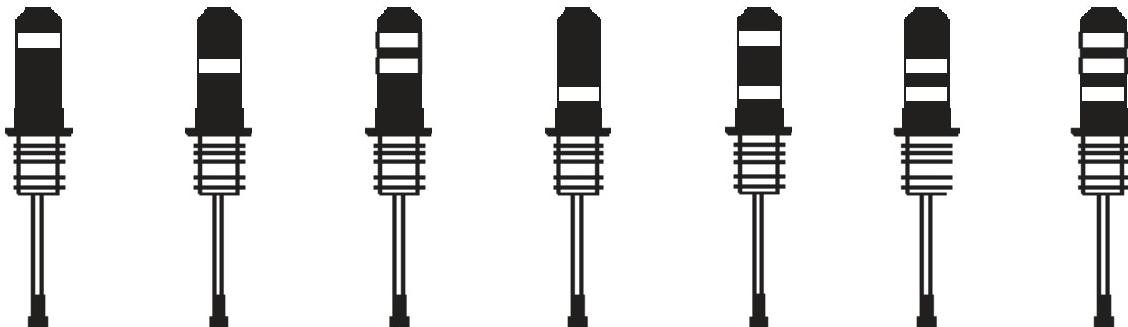
6. Keep a perpetual inventory system. Use an appropriate software package or a 5" x 8" index card for each size of each brand in the storeroom with receipts posted on one side of the card. Make a second column in the middle of the card showing issues to the bar and make a third column showing the balance. Posting of this perpetual inventory card should be done on a daily basis and can be done by a bookkeeper, manager or other responsible individual. Each inventory card should reflect the number of bottles on hand in the storeroom of any brand, at any time. See the next page for sample inventory cards.

7. Management should periodically and at irregular intervals check the bottles on hand against the card balance for specific brands. Such a spot check of three or four brands can be very revealing.

Storeroom Instructions

These brands should have pourers installed before issuance to the bar:

Wash all pourers before re-using



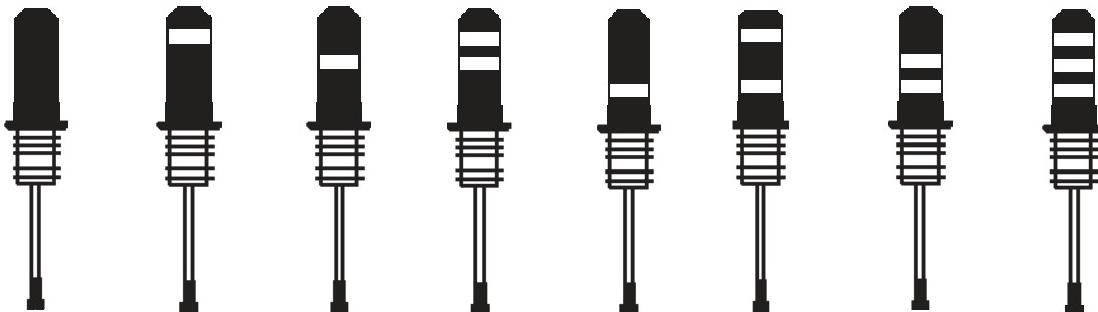
1 2 3 4 5 6 7

A blank grid consisting of 20 horizontal rows and 6 vertical columns, created by black lines on a white background. The grid is intended for use as a template for tables or matrices.

Storeroom Instructions

These brands should have pourers installed before issuance to the bar:

Wash all pourers before re-using



8 9 10 11 12 13 14 15

A blank grid consisting of 20 horizontal rows and 6 vertical columns, created by intersecting black lines on a white background.

Stocking the Bar

1. Except under unusual circumstances, re-stock the bar only once every 24 hours.
2. Keep a par stock available which provides enough bottles of each brand to last through a busy 24 hour cycle plus a modest reserve for each brand. A reserve may contain a bottle of each brand.
3. Many successful and profitable operators provide for the closing bartender to fill out a 3-part requisition form for the liquor, beer, wine and other items needed to re-stock the bar for the coming day.
4. Have your closing bartender's 3-part requisition accompany the empty bottles from the day. By exchanging the empty bottles for full bottles, the par stock is easily maintained with minimum paperwork. The requisition will be filled the following morning.
5. Have the closing bartender keep a copy of the requisition, the storeroom keep a copy and a return a copy with the re-stocking order. Have the opening bartender sign this last copy as a receipt.
6. Give the signed third copy of the requisition to the bookkeeper to be used for reducing the quantities on hand as shown on the inventory cards.



Bar Requisition

Bar _____

Date _____

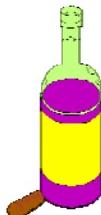
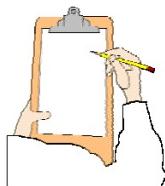
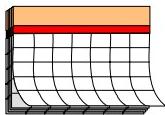
Requisitioned by:

Issued by:

Received by:

Physical Inventory and Inventory Extension

1. Two people are required to quickly and accurately take a physical inventory.
2. A physical inventory should be taken on the last day of every month after the close of business. This inventory can be taken more often if the need arises, but a monthly inventory should be considered as the minimal frequency for a well-run bar.
3. Have one person call the brand, size and number of bottles both in stock and in use. The second person should write the figures on an inventory sheet. These same two people should perform their respective tasks at every inventory. Inventory should start in the storeroom and after all stock is recorded, the team should move to each successive station until the whole bar operation has been covered.
4. The inventory taken from each station can be recorded on the same inventory sheet used in the storeroom or on a separate sheet. If two sheets are used, two separate teams can work the inventory--one in the storeroom and one on the stations (reducing the time it takes to do the inventory)
5. Partial bottles should be visually inspected and recorded as a decimal fraction. For example, if a bottle is slightly more than half full, record as ".6".
6. When the physical inventory is completed, enter the bottle cost next to each item. Multiply the number of bottles of each brand and size (including fractional bottles) by the bottle cost. Add all these multiplied figures to arrive at a grand total. The grand total is the total dollar amount in inventory.



Beverage Inventory

Date _____

Page _____ *of* _____ *Pages*

Counted by:

Entered by:

Priced by: _____

Extended by:

Checked by:

Approved by: _____

Monthly Profitability



1. The total cost of inventory consumed for a period is equal to the dollar total of inventory at the beginning of the month (or period) plus the dollar value of inventory added (taken from the daily requisition) minus the dollar value of the ending inventory. All dollar values are cost values.



2. The corresponding period cash register receipts will provide the actual sales achieved for that inventory used.



3. Divide the total inventory cost by the actual sales. This figure is your cost of goods and is expressed as a percentage of sales.

4. If these records are properly kept, there should be minimum fluctuation of the percentage from month-to-month, especially with the installation of the **All-Bottle 704/1504** system.

All-Bottle Pour Counts and Cash Balancing

1. The dollars or percentage of liquor sales covered by the **All-Bottle 704/1504** should be estimated prior to the installation of the unit.



2. Each time the cash register readings are taken, record the Current pour counts from the **All-Bottle 704/1504** on a Cash Balance Sheet.
3. The bartender uses a Cash Adjustment Sheet to record any comps or other adjustments to the pour count during the shift.
4. After applying any adjustments to the Cash Balance Sheet and the percentage of liquor covered by the **All-Bottle 704/1504**, each cash register will indicate receipts (within a few dollars) of the total on the Cash Balance Sheet.



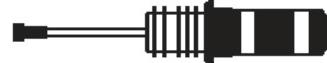
See next page for a sample Cash Balance Sheet and Cash Adjustment Sheet.

Cash Balance Sheet

Date _____

Station _____

Bartender _____

Pourer Code / Size		Current Count	Adjustments	Net Count	Unit Price	Total
Code 1 	S					
	R					
	L					
	X					
Code 2 	S					
	R					
	L					
	X					
Code 3 	S					
	R					
	L					
	X					
Code 4 	S					
	R					
	L					
	X					
Code 5 	S					
	R					
	L					
	X					
Code 6 	S					
	R					
	L					
	X					
Code 7 	S					
	R					
	L					
	X					
Code 8 	S					
	R					
	L					
	X					

Cash Balance Sheet

Date _____

Station _____

Bartender _____

Pourer Code / Size		Current Count	Adjustments	Net Count	Unit Price	Total
Code 9	S					
	R					
	L					
	X					
Code 10	S					
	R					
	L					
	X					
Code 11	S					
	R					
	L					
	X					
Code 12	S					
	R					
	L					
	X					
Code 13	S					
	R					
	L					
	X					
Code 14	S					
	R					
	L					
	X					
Code 15	S					
	R					
	L					
	X					

Signature: _____

Grand Total

Remarks: _____

\$ _____

Cash Adjustment Sheet

Date _____

Checked By _____

\$ _____ *Total Corrections/Comp*

Use this form to explain why any drink is not paid for. Each bartender is responsible for all drinks poured. Failure to follow this important procedure can lead to serious consequences.

SECTION

7 Maintenance

Proper cleaning and maintenance of the **All-Bottle 704/1504** system is essential. Refer to information in this section for the following tasks:

Clean the All-Bottle 704/1504 ECU	7-2
Clean the All-Bottle Coded Pourers	7-3
Test an Activator Ring	7-4
Restore Default Alignment Values	7-5
Align the Activator Ring	7-6

Clean the ECU

Clean the ECU and activator ring about once a week. The ECU is designed to protect the electronics inside from moisture, but bartenders should still be cautioned to avoid splashing water or drinks on the ECU.

■ To clean the All-Bottle 704/1504 ECU:

1. Wipe the front of the ECU with a damp (not dripping) cloth or sponge.
2. Wipe the activator ring and activator ring holder with a damp (not dripping) cloth or sponge.

Note

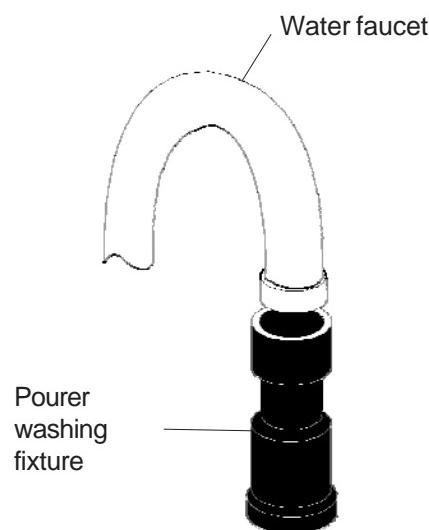
- Do not attempt any more thorough cleaning of an ECU, and absolutely do not attempt to clean any internal circuit boards or surfaces.



Clean the Coded Pourers

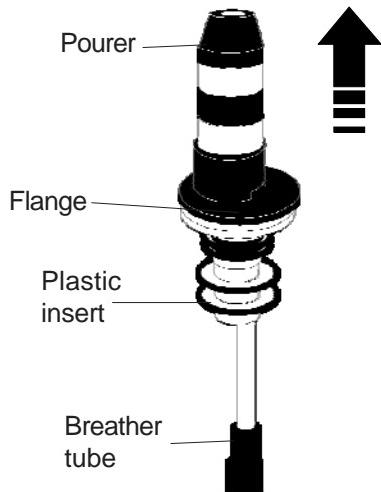
The All-Bottle coded pourers are carefully designed for liquor dispensing applications. They impart no taste or odor to liquor and should only be cleaned with clear water. Each pourer should be cleaned every time it is removed from a bottle. Berg provides a pourer washing fixture for this purpose.

To clean an All-Bottle coded pourer:



1. Attach the smaller end of the pourer washing fixture (Berg PN 9007191) to your faucet. Turn on a gentle flow of warm water.
2. Insert a coded pourer into the pourer washing fixture with the tip of the pourer pointed slightly away from you.
3. Snap the flange of the coded pourer into the washing fixture and hold it there for a few seconds.

Two streams of water (one from the end of the breather tube and the other from inside the plastic insert) flow from the coded pourer when all passages are clear. Especially gummy pourers may need to be held in the washing fixture a little longer until both streams of water are running freely.



Notes

- Never clean your pourers in a dishwasher.
- Never use soap to clean a pourer. Unless removed completely, soap can get into your liquor. It can also react chemically with the specially formulated plastics and make them brittle, shortening the useful life of your pourers.
- If a pourer is removed from a bottle and allowed to dry without being cleaned, soak it for several minutes in clear, warm water to loosen the dried liquor before inserting the pourer in the washing fixture. Repeat the soaking and rinsing if necessary.
- Check the plastic insert of a pourer when cleaning. Liquor drying on the plastic may remove some of the plastic's elasticity. If the plastic insert remains stiff after cleaning, replace it.

Test an Activator Ring

You can perform this test on an activator ring to see its alignment numbers for any given pourer code. It's also a good way to verify an activator ring after alignment.



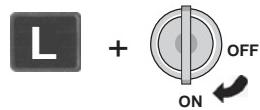
■ To test a pourer:

1. Access the Maintenance menu by pressing “L” while turning the key from OFF to ON.
2. Press **S** to start the test.
3. Perform the test on the activator ring’s ability to read any pourer code:
 - Insert a pourer into the activator ring.
 - Tip the activator ring and the pourer upside down and hold in this position until you see alignment numbers.
 - Upright the ring.
 - Repeat for any pourer code you want to test. (Test the ring itself by tipping without a pourer.)
4. Press **S** when you’re ready to exit.

Restore Default Alignment Values

Restore default values if you've mistakenly aligned the wrong pourer code during the alignment process, or anytime you need to get back to a starting point or if directed to do so by Berg personnel.

■ To restore default alignment values:



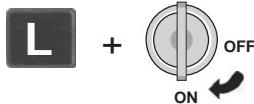
1. Access the Maintenance menu by pressing “L” while turning the key from OFF to ON.
2. Press **X** to start the alignment process.
3. Press **S** to restore default values.



Align the Activator Ring

The activator ring "reads" the subtle electronic signals on each coded pourer to assign the correct price and portion information to a pour. Aligning the activator ring ensures the ring can recognize each pourer's code. You should perform the alignment if directed by Berg personnel. Use a complete set of coded pourers when you perform the activator ring alignment.

To align the activator ring:



1. Access the Maintenance menu by pressing "L" while turning the key from OFF to ON.



2. Press **X** to start the alignment process.



3. Press **S** to restore default values.

Press **X** to proceed with alignment.

The display indicates a pourer number.

4. Align each pourer in succession:

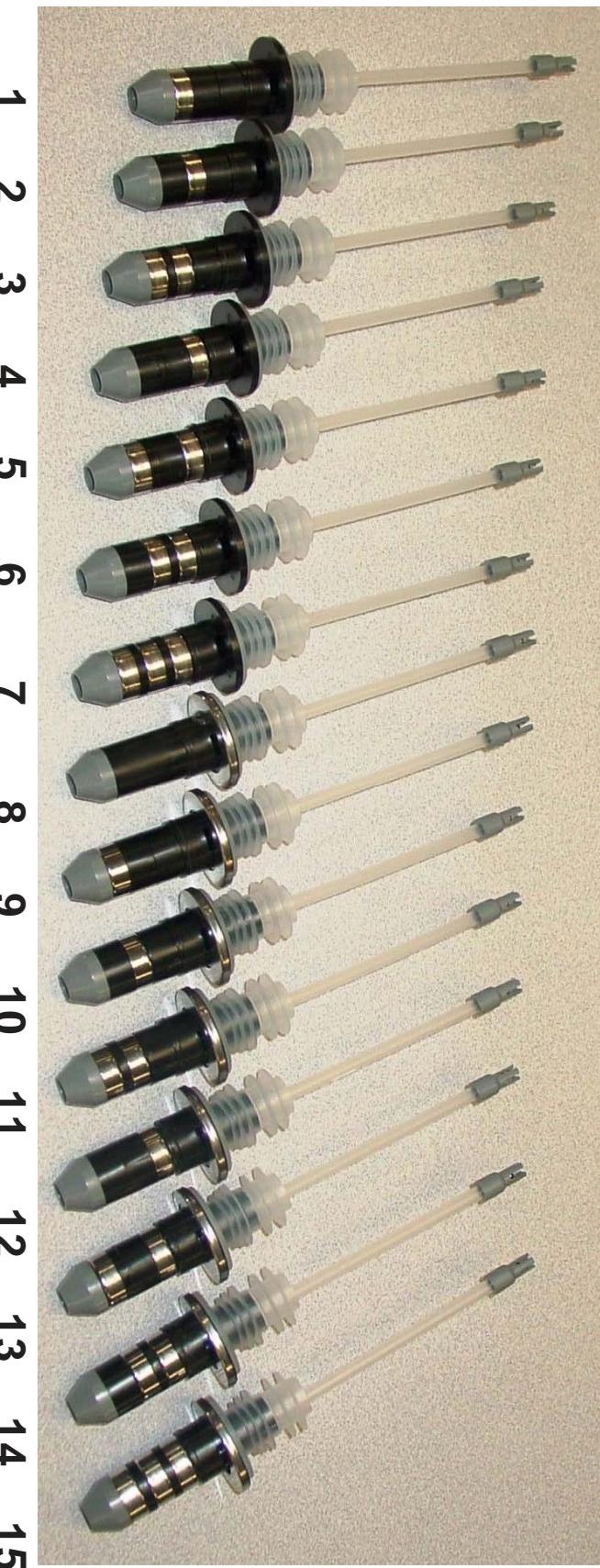
- ❑ Insert the specified pourer code into the activator ring.
(See the *Pourer Codes* graphic.)
- ❑ Tip the activator ring and the pourer upside down and hold in this position until the display reads "done".
- ❑ Tip the activator ring and pourer upright.
The display indicates the next pourer number.

5. Repeat step 4 for each of the other pourers.

Notes

- ❑ To exit the alignment process, press **S**.
- ❑ To re-do a pourer or get back to a pourer number, press **X** repeatedly to cycle through the pourer numbers to the correct one.

All-Bottle 704/1504 Pourer Codes



SECTION **8** ECU Firmware

Work with Berg personnel to receive new firmware versions for the ECU. Refer to this section for help with the following tasks:

Upgrade ECU Firmware	8-2
View the ECU Serial Number and Firmware Version	8-4

Upgrade ECU Firmware

Perform this task when you receive an ECU upgrade file from Berg.

■ To upgrade ECU firmware:

firmware update

1. Remove power to the ECU. Press and hold the "X" button while re-applying power.
2. Connect a null modem cable (Berg PN 8007020) to a COM port on the computer. Connect the other end to the back of the ECU. Tighten all connecting screws.
3. Make sure the upgrade file is accessible at the computer (in a CD drive, copied to a folder, etc.).
4. Run Berg Terminal software. Make sure the communication settings are correct. (See *Berg Terminal Software* in the *ECU Files* section.)
5. Click **Re-Program....**
6. Select the *AB704/1504-Fvxxxx.hex* upgrade file from the appropriate folder.
7. Click **Open** to send the file to the ECU.

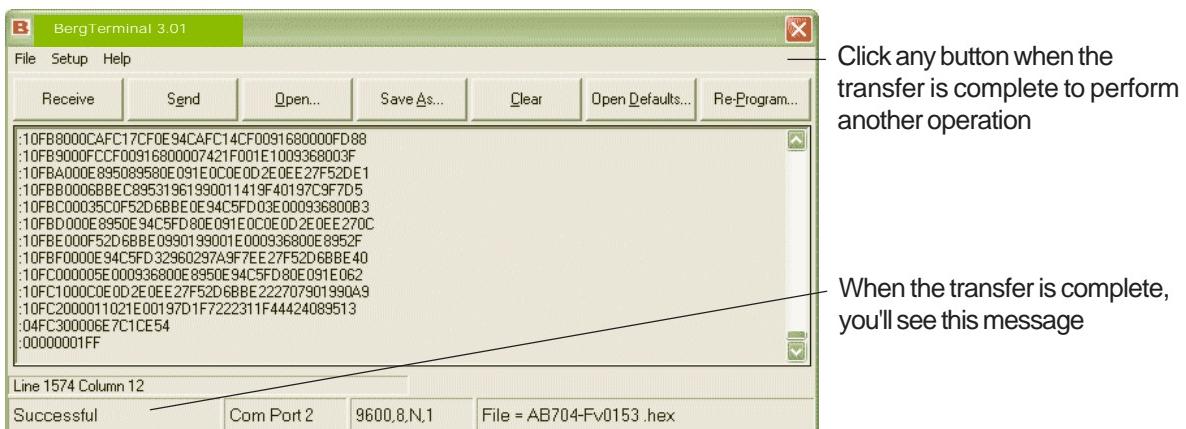
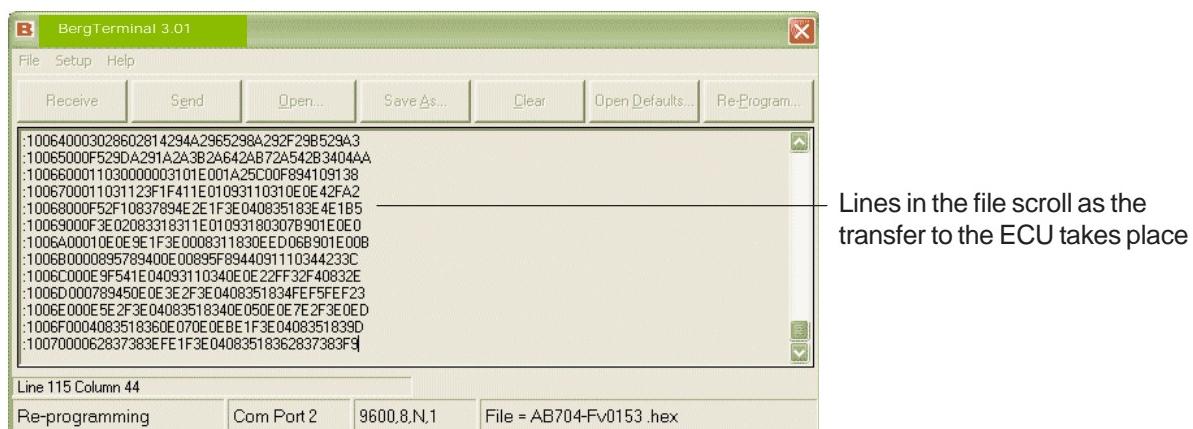
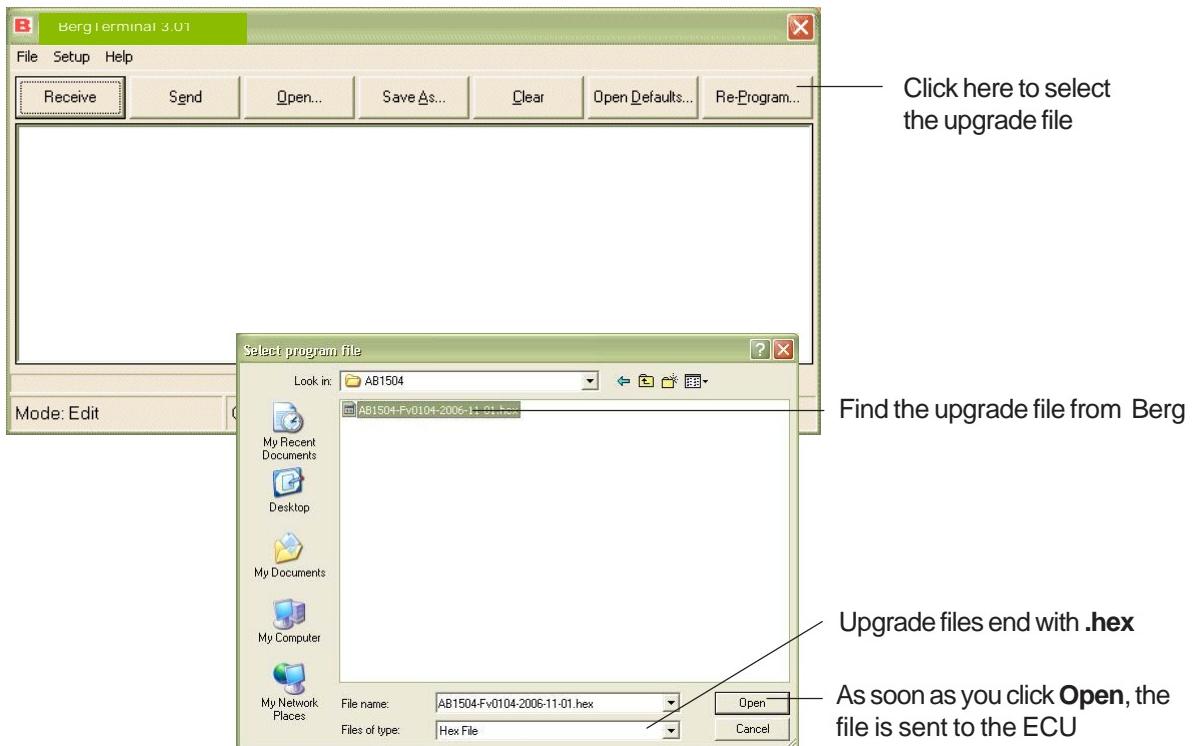
Berg Company V01.53

When the file transfer is complete, the ECU powers up and momentarily displays the new version number.

8. When you've finished all communications, disconnect the null modem cable from the ECU and computer.

Note

- ❑ If you do not have a null modem cable, you can use Berg's universal POS interface cable kit (Berg PN 8009092).



View the ECU Serial Number and Firmware Version

To quickly determine the serial number and firmware version of your All-Bottle 704/1504 ECU, follow these steps. (You can't do this while in any of the Setup, Communication or Report menus.)

■ To view the serial number and firmware version:

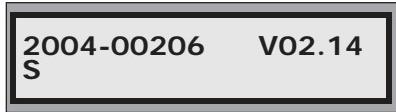


1. Press at the same time "S", "R" and



*The serial number appears on the left of the LCD screen.
The firmware version is the number starting with "V".*

OR



SECTION

9

All-Bottle 704/1504 Specifications

All-Bottle 704/1504 Specifications

Basic System

Electronic Control Unit size :	3.25 in (82 mm) H 8.25 in (210 mm) W 4.5 in (114 mm) D 3.2 lbs (1.5 kg)
ECU Mounting Plate size :	9.5 in (242 mm) W 5.5 in (142 mm) D
Dispenser type:	Patented bottle pourers and activator ring
Number of brands:	Unlimited
Number of price codes:	15
Portion size:	1/8 to 10 ounces (3.7 to 295.7 ml)
Number of portion sizes:	Four per price code
Number of prices:	Four per price code
Calibration:	By portion
Other Features:	Repeat Pour Delay, Portion Size Reset
Reports:	X, Z and Last-Z Reports
Display type:	LCD 2x20 (shows portions dispensed per code and size)
Security:	Keylock
Interface Capability:	POS/Printer

Power Supply Requirements

Input voltage, connector and frequency:	As required by your locality
DC output:	12VDC @ 1.25A
Output power:	15VA MAX
Mating connector:	2.1 mm female, center positive

Any power supply you purchase for use with Berg's All-Bottle 704/1504 ECU must at a minimum be a Class II supply meeting these specifications and must carry one or more of the following certifications, as required by your locality.

Certifications: UL 1950, TUV EN60950, CSA 22.2 950, IEC 950.

Technical

Electrical Requirements:	12VDC @ 1.25A
Emissions:	FCC Class A, EN55022:1994 Class B
Susceptibility:	EN50082-1:1992
Safety:	CENELEC EN61010.1 (IEC 1010-1:1990=A1:1992, Modified) First Edition UL 3101-1, CSA C22.2 No. 1010.1-92

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